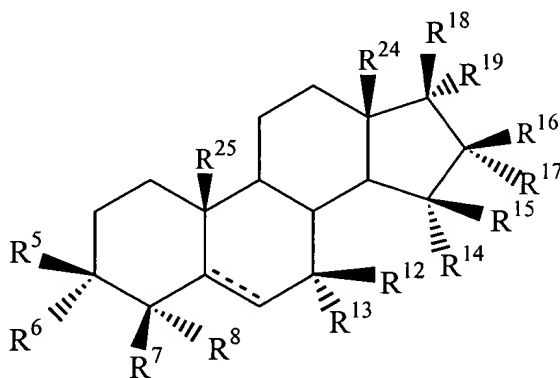


### AMENDMENTS TO THE CLAIMS

This listing of claims replaces any prior version of the claims in the application.

5            Claims 1-32 (cancelled)

33 (withdrawn): A pharmaceutical composition comprising at least one compound of the following structure



10            wherein R<sup>5</sup> and R<sup>6</sup> are each independently selected from the group consisting of OC(O)OCH<sub>3</sub>, -OH, -SH, -NH<sub>2</sub>, -OSO<sub>3</sub>H, -OPO<sub>3</sub>H, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer, provided that at least one of R<sup>7</sup> and R<sup>8</sup>  
15            are OC(O)OCH<sub>3</sub>;  
20

             wherein R<sup>7</sup>, R<sup>8</sup>, R<sup>12</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>19</sup> are each independently selected from the group consisting of -H, -OH, -SH, -NH<sub>2</sub>, -OSO<sub>3</sub>H, -OPO<sub>3</sub>H, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether,

an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and  $R^7$  and  $R^8$  together,  $R^{12}$  and  $R^{13}$  together,  $R^{14}$  and  $R^{15}$  together,  $R^{16}$  and  $R^{17}$  together, and  $R^{18}$  and  $R^{19}$  together independently form a double bond to a moiety selected from the group consisting of  $=O$ ,  $=S$ ,  $=CH_2$  and  $=NOH$ , provided that only one each of  $R^{12}$  and  $R^{13}$  or  $R^{18}$  and  $R^{19}$  can independently be H;

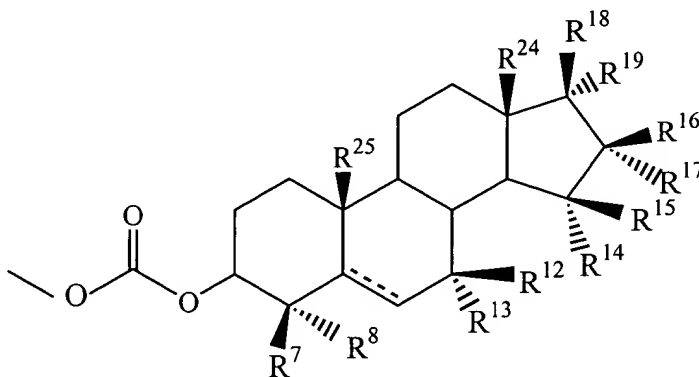
wherein  $R^{24}$  and  $R^{25}$  are either H or  $CH_3$ ;

wherein the dotted line is an optional double bond;

wherein the  $OC(O)OCH_3$  at the 3 position is in either the  $\alpha$  or  $\beta$  configuration;

and a pharmaceutically acceptable excipient.

34 (withdrawn): The pharmaceutical composition of claim 33, wherein said at least one compound has the following structure



wherein  $R^7$ ,  $R^8$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$  and  $R^{19}$  are each independently selected from the group consisting of  $-H$ ,  $-OH$ ,  $-SH$ ,  $-NH_2$ ,  $-OSO_3H$ ,  $-OPO_3H$ , an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally

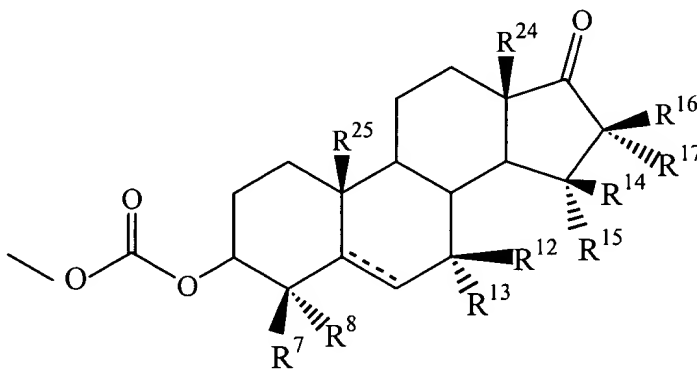
substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a  
5 nucleoside, a nucleotide, an oligonucleotide, a polymer and  $R^7$  and  $R^8$  together,  $R^{12}$  and  $R^{13}$  together,  $R^{14}$  and  $R^{15}$  together,  $R^{16}$  and  $R^{17}$  together, and  $R^{18}$  and  $R^{19}$  together independently form a double bond to a moiety selected from the group consisting of  $=O$ ,  $=S$ ,  $=CH_2$  and  $=NOH$ , provided that only one each of  $R^{12}$  and  $R^{13}$  or  $R^{18}$  and  $R^{19}$  can independently be H;

10 wherein  $R^{24}$  and  $R^{25}$  are either H or  $CH_3$ ;

wherein the dotted line is an optional double bond;

wherein the  $OC(O)OCH_3$  at the 3 position is in either the  $\alpha$  or  $\beta$  configuration; and a pharmaceutically acceptable excipient.

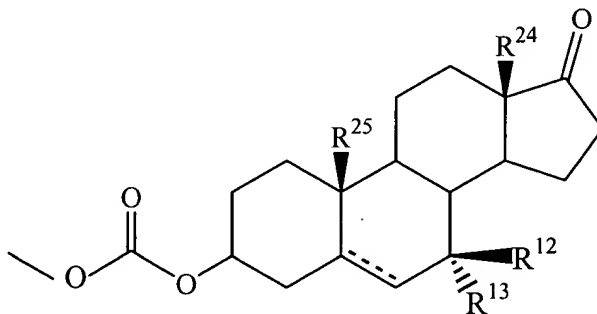
15 35 (withdrawn): The pharmaceutical composition of claim 34, wherein said at least one compound has the following structure



wherein  $R^7$ ,  $R^8$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$  and  $R^{17}$  are each independently selected from the group consisting of -H, -OH, -SH, - $NH_2$ , - $OSO_3H$ , - $OPO_3H$ , an ester, a  
20 phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle,

an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and  $R^7$  and  $R^8$  together,  $R^{12}$  and  $R^{13}$  together,  $R^{14}$  and  $R^{15}$  together, and  $R^{16}$  and  $R^{17}$  together independently form a double bond to a moiety selected from the group consisting of  $=O$ ,  $=S$ ,  $=CH_2$  and  $=NOH$ , provided that only one of each of  $R^{12}$  and  $R^{13}$  can independently be H; wherein  $R^{24}$  and  $R^{25}$  are either H or  $CH_3$ ; wherein the dotted line is an optional double bond; wherein the  $OC(O)OCH_3$  at the 3 position is in either the  $\alpha$  or  $\beta$  configuration; and a pharmaceutically acceptable excipient.

36 (withdrawn): The pharmaceutical composition of claim 35, wherein said at least one compound has the following structure



wherein  $R^{12}$  and  $R^{13}$  are each independently selected from the group consisting of -H, -OH, -SH,  $-NH_2$ ,  $-OSO_3H$ ,  $-OPO_3H$ , an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a nucleotide, an oligonucleotide, a polymer and  $R^{12}$  and  $R^{13}$  together form a double

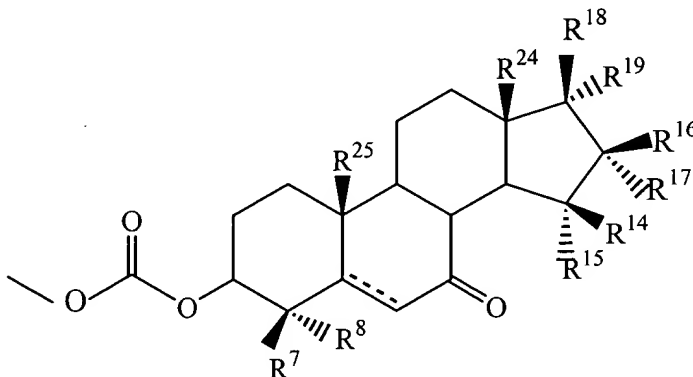
bond to a moiety selected from the group consisting of =O, =S, =CH<sub>2</sub> and =NOH, provided that only one of R<sup>12</sup> and R<sup>13</sup> is H;

wherein R<sup>24</sup> and R<sup>25</sup> are either H or CH<sub>3</sub>;

wherein the dotted line is an optional double bond;

- 5 wherein the OC(O)OCH<sub>3</sub> at the 3 position is in either the α or β configuration; and a pharmaceutically acceptable excipient.

37 (withdrawn): The pharmaceutical composition of claim 34, wherein said at least one compound has the following structure

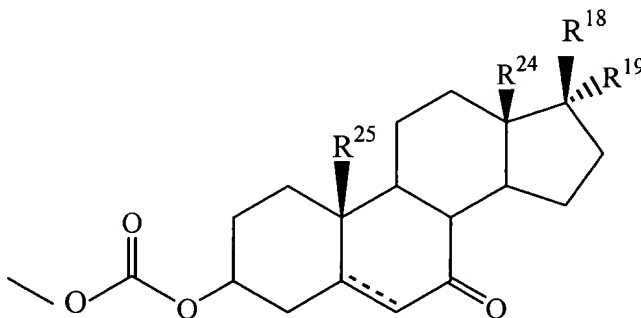


10 wherein R<sup>7</sup>, R<sup>8</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>19</sup> are each independently selected from the group consisting of -H, -OH, -SH, -NH<sub>2</sub>, -OSO<sub>3</sub>H, -OPO<sub>3</sub>H, an ester, a phosphoester, a phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a sulfonamide, an amino acid, an ether, a thioether, an acyl  
15 group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, an optionally substituted aryl moiety, an optionally substituted heterocycle, an optionally substituted heteroaryl moiety, an optionally substituted monosaccharide, an optionally substituted oligosaccharide, a  
20 nucleoside, a nucleotide, an oligonucleotide, a polymer and R<sup>7</sup> and R<sup>8</sup> together, R<sup>14</sup> and R<sup>15</sup> together, R<sup>16</sup> and R<sup>17</sup> together, and R<sup>18</sup> and R<sup>19</sup> together independently form a double bond to a moiety selected from the group consisting of =O, =S, =CH<sub>2</sub> and =NOH, provided that only one of each of R<sup>18</sup> and R<sup>19</sup> can be H;

wherein  $R^{24}$  and  $R^{25}$  are either H or  $CH_3$ ;  
wherein the dotted line is an optional double bond;  
wherein the  $OC(O)OCH_3$  at the 3 position is in either the  $\alpha$  or  $\beta$   
configuration; and a pharmaceutically acceptable excipient.

5

38 (withdrawn): The pharmaceutical composition of claim 37, wherein said  
at least one compound has the following structure

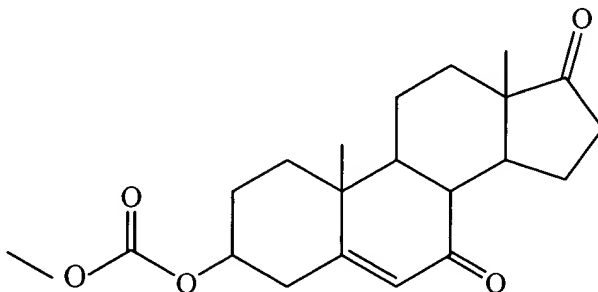


wherein  $R^{18}$  and  $R^{19}$  are each independently selected from the group  
consisting of -H, -OH, -SH, - $NH_2$ , - $OSO_3H$ , - $OPO_3H$ , an ester, a phosphoester, a  
phosphonoester, a sulfite ester, a sulfate ester, a thioester, an amide, a  
sulfonamide, an amino acid, an ether, a thioether, an acyl group, a carbonate, a  
carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an  
optionally substituted alkenyl group, an optionally substituted alkynyl group, an  
optionally substituted aryl moiety, an optionally substituted heterocycle, an  
optionally substituted heteroaryl moiety, an optionally substituted  
monosaccharide, an optionally substituted oligosaccharide, a nucleoside, a  
nucleotide, an oligonucleotide, a polymer and  $R^{18}$  and  $R^{19}$  together form a double  
bond to a moiety selected from the group consisting of  $=O$ ,  $=S$ ,  $=CH_2$  and  $=NOH$ ,  
provided that only one of  $R^{18}$  and  $R^{19}$  is -H;

wherein  $R^{24}$  and  $R^{25}$  are either H or  $CH_3$ ;  
wherein the dotted line is an optional double bond;  
wherein the  $-OC(O)OCH_3$  at the 3 position is in either the  $\alpha$  or  $\beta$   
configuration; and a pharmaceutically acceptable excipient.

25

39 (withdrawn): The pharmaceutical composition of claim 34, wherein said at least one compound has the following structure

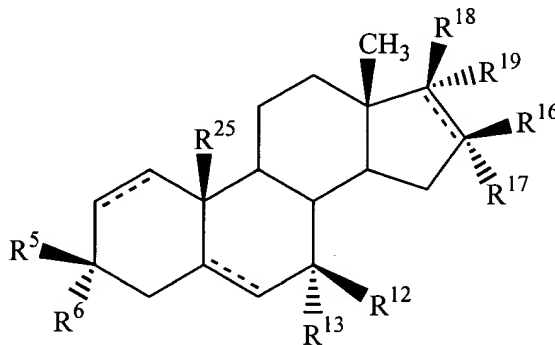


and a pharmaceutically acceptable excipient.

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Claims 40-55 (cancelled)

Claim 56 (currently amended): A method to treat a condition selected from the group consisting of androgen responsive prostate cancer and androgen responsive benign prostatic hyperplasia in a subject, or to ameliorate one or more symptoms thereof, comprising administering to the subject, or delivering to the subject's tissues an effective amount of a compound having the structure



wherein,

R<sup>5</sup> and R<sup>6</sup> independently are -H, a carbonate, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, a monosaccharide or an oligosaccharide, provided that R<sup>5</sup> or R<sup>6</sup> is a carbonate;

$R^{12}$ ,  $R^{13}$ ,  $R^{16}$  and  $R^{17}$  together or each independently are -H, -OR<sup>PR</sup>, -SR<sup>PR</sup>, -N(R<sup>PR</sup>)<sub>2</sub>, -OSO<sub>3</sub>H, -OPO<sub>3</sub>H, =O, =S, =CH<sub>2</sub>, =NOH, an ester, an amide, an

amino acid, a peptide, an ether, a thioether, an acyl group, a carbonate, a carbamate, a sulfonamide, a halogen, an optionally substituted alkyl group, an optionally substituted alkenyl group or an optionally substituted alkynyl group; and

5            $R^{18}$  and  $R^{19}$  together or each independently are -H, -OR<sup>PR</sup>, -SR<sup>PR</sup>, -N(R<sup>PR</sup>)<sub>2</sub>, =O, =S, =CH<sub>2</sub>, =NOH, an ester, an amino acid, a peptide, an ether, a thioether, a carbonate, a carbamate, an optionally substituted alkyl group, an optionally substituted alkenyl group, an optionally substituted alkynyl group, a monosaccharide or an oligosaccharide, provided that  $R^{18}$  or  $R^{19}$  is -OR<sup>PR</sup>, -SR<sup>PR</sup>,  
10       -N(R<sup>PR</sup>)<sub>2</sub>, =O, =S, =NOH, an ester, an amino acid, a peptide, an ether, a thioether, a carbonate, a carbamate, a monosaccharide or an oligosaccharide;

$R^{25}$  is -H or optionally substituted alkyl; and

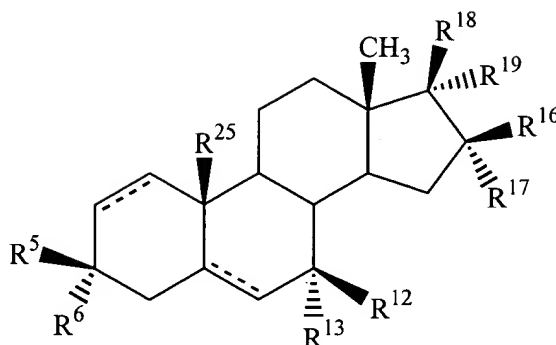
$R^{PR}$  independently or together are -H or a protecting group, wherein any substituted alkyl, alkenyl or alkynyl moiety contains 1, 2, 3 or 4 independently  
15       chosen moieties selected from the group consisting of -O-, -S-, -NR<sup>PR</sup>-, -C(O)-, -N(R<sup>PR</sup>)<sub>2</sub>-, -C(O)OR<sup>PR</sup>-, -OC(O)R<sup>PR</sup>-, -OR<sup>PR</sup>-, -SR<sup>PR</sup>-, -NO<sub>2</sub>-, -CN-, -NHC(O)-, -C(O)NH-, -OC(O)-, -C(O)O-, -O-A8, -S-A8, -C(O)-A8, -OC(O)-A8, -C(O)O-A8, =N-, -N=, -OPO<sub>2</sub>R<sup>PR</sup>-, -OSO<sub>3</sub>H-, -F-, -Cl-, -Br and -I, wherein A8 is C<sub>1-8</sub> alkyl, C<sub>2-8</sub> alkenyl, C<sub>2-8</sub> alkynyl, C<sub>1-4</sub> alkyl-aryl, aryl or C<sub>1-4</sub> alkyl-C<sub>1-5</sub> heterocycle.

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          Claim 57. (previously presented): The method of claim 56, wherein the condition is androgen responsive prostate cancer.

          Claim 58 (currently amended): The method of claim 57 wherein the  
25       compound has the structure





Claim 59 (currently amended): The method of claim 58 wherein

- (a) R<sup>18</sup> is -OH, -O-C(O)-CH<sub>3</sub> or -O-C(O)-CH<sub>2</sub>CH<sub>3</sub> and R<sup>19</sup> is -H, -C≡CH or -C≡CCH<sub>3</sub>, or R<sup>18</sup> and R<sup>19</sup> together are =O, =S or =NOH, or  
5 (b) R<sup>18</sup> is -H, -C≡CH or -C≡CCH<sub>3</sub> and R<sup>19</sup> is -OH, -O-C(O)-CH<sub>3</sub>, -O-C(O)-CH<sub>2</sub>CH<sub>3</sub>.

Claim 60 (canceled)

Claim 61 (currently amended): The method of claim 59 wherein R<sup>12</sup> and R<sup>13</sup> independently or together are -H, -OH, -SH, -NH<sub>2</sub>, =CH<sub>2</sub>, =CHCH<sub>3</sub>, =NOH, =NOC(O)CH<sub>3</sub>, =O or =S.

Claim 62 (canceled)

Claim 63 (previously presented): The method of claim 59 wherein R<sup>16</sup> and R<sup>17</sup> independently or together are -H, -OH, -SH, =O, =S, -O-C(O)-CH<sub>3</sub> or -O-C(O)-OCH<sub>3</sub>.

Claim 64 (previously presented): The method of claim 59 wherein R<sup>5</sup> or R<sup>6</sup> is -H, -CCH<sub>3</sub>, -CH<sub>3</sub> or -C<sub>2</sub>H<sub>5</sub>.

Claim 65 (previously presented): The method of claim 64 wherein R<sup>25</sup> is -  
H, -CH<sub>3</sub>, -CH<sub>2</sub>OH, -CH<sub>2</sub>OC(O)CH<sub>3</sub>, -OC(O)CH<sub>3</sub> or -CH<sub>2</sub>OC(O)OCH<sub>3</sub>.

Claim 66 (canceled)

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Claim 67 (previously presented): The method of claim 65 wherein R<sup>25</sup> is -  
CH<sub>3</sub>.

Claim 68 (previously presented): The method of claim 67 wherein a  
10 double bond is present at the 1-2 and 5-6 positions.

Claim 69 (previously presented): The method of claim 67 wherein a  
double bond is present at the 5-6 position.

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